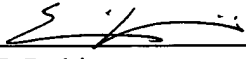


REMARKS

By this preliminary amendment the title, specification and claims have been amended.
Examination on the merits is requested.

Respectfully submitted,



Eric J. Robinson
Reg. No. 38,285

NIXON PEABODY LLP
8180 Greensboro Drive
McLean, Virginia 22102
(703) 790-9110

IN THE TITLE:

Please substitute the title as follows:

[ELECTRO-OPTICAL DEVICE AND METHOD OF DRIVING THE SAME] ACTIVE
MATRIX DISPLAY DEVICE

IN THE SPECIFICATION

Please substitute the Abstract with the following paragraph:

[The method of fine gradation display by an electro-optical device with little influence by difference in elemental devices, is disclosed, which is an object of the present invention. In case of an active matrix electro-optical device, a visual gradation display can be carried out by digitizing an analog image signal externally supplied by means of binary notation, by temporarily storing the digital signal thus obtained, by outputting the digital signal to a circuit of next step in a proper order, and by controlling the output timing of the signal so as to output the signal to the active matrix electro-optical device, and whereby digitally controlling the time for applying voltage to a picture element.]

-- A display device including a substrate and at least one thin film transistor formed over the substrate, wherein the thin film transistor includes a semiconductor film. An insulating film including an inorganic material is provided over the thin film transistor. A leveling film including an organic resin is formed over the substrate and covers the thin film transistor. A pixel electrode is formed on the leveling film and is directly connected to the semiconductor film of the thin film transistor through an opening provided in the leveling film, wherein an edge of the organic resin film at a periphery of the opening is round. --

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

Please amend claims as follows:

56. (Amended) A display device comprising:
[a substrate having an insulating surface;]
at least one thin film transistor formed [on said insulating surface] over a substrate, said thin film transistor having a semiconductor film comprising silicon as an active layer thereof;
an insulating film comprising an inorganic material formed over said semiconductor film;
a first contact hole in said insulating film;
a wiring formed on said insulating film and electrically connected to said semiconductor film through said first contact hole formed in said insulating film;
a leveling film comprising an organic resin to provide a leveled upper surface over said semiconductor film;
a second opening through said leveling film and said insulating film; and
a pixel electrode formed over said leveled upper surface and directly connected to said semiconductor film through said second opening,
wherein an edge of said leveling film at a periphery of said second opening is rounded.

57. (Amended) A display device comprising:
[a substrate having an insulating surface;]
at least one thin film transistor formed [on said insulating surface] over a substrate, said thin film transistor having a semiconductor film comprising silicon as an active layer thereof;
an insulating film comprising an inorganic material formed over said semiconductor film;

VERSION WITH MARKINGS TO SHOW CHANGES MADE

a wiring formed on said insulating film and electrically connected to said semiconductor film through a contact hole formed in said insulating film;

a leveling film comprising an organic resin provided over said semiconductor film, said insulating film and said wiring;

an opening through said leveling film and said insulating film; and

a pixel electrode formed over said leveling film and directly connected to said semiconductor film through said opening,

wherein a diameter of said opening is larger at an uppermost surface of said leveling film than at a lowermost surface thereof.

58. (Amended) A display device comprising:

[a substrate having an insulating surface;]

at least one thin film transistor formed [on said insulating surface] over a substrate, said thin film transistor having a semiconductor film comprising silicon as an active layer thereof;

an insulating film over said semiconductor film, said insulating film comprising an inorganic material;

a leveling film comprising an organic resin formed over said insulating film;
and

a pixel electrode formed over said leveling film and directly connected to said semiconductor film through an opening provided in said leveling film,

wherein an edge of said organic resin film at a periphery of said opening is rounded.

59. (Amended) A display device comprising:

a plurality of thin film transistors formed [on an insulating surface] over a substrate, each of said thin film transistors comprising at least a semiconductor film;

an insulating film formed over said semiconductor film, said insulating film comprising an inorganic material;

VERSION WITH MARKINGS TO SHOW CHANGES MADE

first opening formed in said insulating film over said semiconductor film;
a leveling layer formed over said insulating film to provide a leveled upper surface, wherein said leveling layer comprises an organic resin and is prevented from directly contacting said semiconductor film by said insulating film;
second opening through said leveling layer and said insulating film over said semiconductor film; and
a pixel electrode formed over said leveled upper surface, said pixel electrode being directly connected to said semiconductor film through said second opening.

60. (Amended) A display device comprising:
[a substrate having an insulating surface;]
at least one thin film transistor formed [on said insulating surface] over a substrate, said thin film transistor having a semiconductor film comprising silicon as an active layer thereof;
an insulating film comprising an inorganic material formed over said semiconductor film;
a first contact hole formed in said insulating film;
a wiring formed on said insulating film and electrically connected to said semiconductor film through said first contact hole formed in said insulating film;
a leveling film comprising an organic resin to provide a leveled upper surface over said semiconductor film;
a second opening through said leveling film and said insulating film; and
a pixel electrode formed over said leveled upper surface and directly contacting said semiconductor film through said second opening.

61. (Amended) A television having a display unit and a tuner for receiving television radio wave, said display unit comprising:
[a substrate having an insulating surface;]

VERSION WITH MARKINGS TO SHOW CHANGES MADE

at least one thin film transistor formed [on said insulating surface] over a substrate, said thin film transistor having a semiconductor film comprising silicon as an active layer thereof;

an insulating film comprising an inorganic material formed over said semiconductor film;

a first contact hole in said insulating film;

a wiring formed on said insulating film and electrically connected to said semiconductor film through said first contact hole formed in said insulating film;

a leveling film comprising an organic resin to provide a leveled upper surface over said semiconductor film;

a second opening through said leveling film and said insulating film; and

a pixel electrode formed over said leveled upper surface and directly connected to said semiconductor film through said second opening,

wherein an edge of said leveling film at a periphery of said second opening is rounded.

62. (Amended) A television having a display unit and a tuner for receiving television radio wave, said display unit comprising:

[a substrate having an insulating surface;]

at least one thin film transistor formed [on said insulating surface] over a substrate, said thin film transistor having a semiconductor film comprising silicon as an active layer thereof;

an insulating film comprising an inorganic material formed over said semiconductor film;

a wiring formed on said insulating film and electrically connected to said semiconductor film through a contact hole formed in said insulating film;

a leveling film comprising an organic resin provided over said semiconductor film, said insulating film and said wiring;

an opening through said leveling film and said insulating film; and

VERSION WITH MARKINGS TO SHOW CHANGES MADE

a pixel electrode formed over said leveling film and directly connected to said semiconductor film through said opening,

wherein a diameter of said opening is larger at an uppermost surface of said leveling film than at a lowermost surface thereof.

63. (Amended) A television having a display unit and a tuner for receiving television radio wave, said display unit comprising:

[a substrate having an insulating surface;]

at least one thin film transistor formed [on said insulating surface] over a substrate, said thin film transistor having a semiconductor film comprising silicon as an active layer thereof;

an insulating film over said semiconductor film, said insulating film comprising an inorganic material;

a leveling film comprising an organic resin formed over said insulating film;

and

a pixel electrode formed over said leveling film and directly connected to said semiconductor film through an opening provided in said leveling film,

wherein an edge of said organic resin film at a periphery of said opening is rounded.

64. (Amended) A television having a display unit and a tuner for receiving television radio wave, said display unit comprising:

a plurality of thin film transistors formed [on an insulating surface] over a substrate, each of said thin film transistors comprising at least a semiconductor film;

an insulating film formed over said semiconductor film, said insulating film comprising an inorganic material;

first opening formed in said insulating film over said semiconductor film;

VERSION WITH MARKINGS TO SHOW CHANGES MADE

a leveling layer formed over said insulating film to provide a leveled upper surface, wherein said leveling layer comprises an organic resin and is prevented from directly contacting said semiconductor film by said insulating film;

second opening through said leveling layer and said insulating film over said semiconductor film; and

a pixel electrode formed over said leveled upper surface, said pixel electrode being directly connected to said semiconductor film through said second opening.

65. (Amended) A television having a display unit and a tuner for receiving television radio wave, said display unit comprising:

[a substrate having an insulating surface;]

at least one thin film transistor formed [on said insulating surface] over a substrate, said thin film transistor having a semiconductor film comprising silicon as an active layer thereof;

an insulating film comprising an inorganic material formed over said semiconductor film;

a first contact hole formed in said insulating film;

a wiring formed on said insulating film and electrically connected to said semiconductor film through said first contact hole formed in said insulating film;

a leveling film comprising an organic resin to provide a leveled upper surface over said semiconductor film;

a second opening through said leveling film and said insulating film; and

a pixel electrode formed over said leveled upper surface and directly contacting said semiconductor film through said second opening.